

Work Order ID 140667-2

January 13, 2016 11:20:08 AM

SPLIT

140667

Complete order to ship Feb 1

Please cut Jan 14-18

Page 1

Item ID: D4354-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Bearpaw Wearplate Assembly

Stop

NS2

Start Date: 1/13/2016 Start Qty: 15.00

15

Cust Item ID:

Required Date: 1/19/2016 Req'd Qty: 15.00

15

Customer:

Reference:

Approvals:

Process Plan: SM

Date: 20160113

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D4354

b

100

0.00

100

Waterjet

Memo

0.10

FLOW CNC Waterjet

1-Cut as per Dwg (D4354-1)

Dwg Rev: b

Prog Rev: b

2-Deburr if necessary

(18)

02/16/2018

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

(18)

02/16/2018

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Description Work Order Deviation				Disposition																																																													
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

January 13, 2016 11:20:08 AM

Page 2

Setup Start *NS1*

Stop *NS2*

Start Date: 1/13/2016 **Start Qty:** 15.00 ***15***

Required Date: 1/19/2016 Req'd Qty: 15.00 *15*

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Tool ID	Tool #	Plan Code
---------	--------	-----------

0.00

120

QC

Memo

0.01

Quality Control

JAN 18 2016

0.00

130

Large Fab

Memo

0.27

Large Fab

1- Weld cups as per dwg

A/R S.S. ROD BATCH: m126014

2- Apply hardfacing on wearplate as indicated on dwg

A/R HARDCOAT 2059B BATCH: *m130145*

QC5- Inspect part completeness to step on W/O	0.00
---	------

140

QC

Мето

0.01

Quality Control

DAS
18
9-89

DA
38
9-88

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																														
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Work Order ID 140667

January 13, 2016 11:20:08 AM

140667

Page 3

Item ID: D4354-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bearpaw Wearplate Assembly
 Start Date: 1/13/2016 Start Qty: 15.00 ***15*** Cust Item ID:
 Required Date: 1/19/2016 Req'd Qty: 15.00 ***15*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	DAS 18 9-89
150	QC9- Inspect visual per QSI004- Fusion Welds	0.00								
150										
QC	Memo	0.00								
Quality Control										
160	Identify as per dwg & Stock Location: <u>Sold</u>	0.00								
160										
Packaging	Memo	0.00								
Packaging										
170	QC21- Final Inspection - Work Order Release	0.00								
170										
QC	Memo	0.03								
Quality Control										

11 8 BE/6-02-01

11 DAS 8 9-89 FEB 01 2016

ML5 FEB 01 2016

ML5 FEB 01 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

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								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

January 13, 2016 11:20:12 AM

Page 1

Work Order ID: 140667

140667

Parent Item: D4354-041

D4354-041

Parent Item Name: Bearpaw Wearplate Assembly

Start Date: 1/13/2016

Required Date: 1/19/2016

Start Qty: 15.00

Required Qty: 15.00

Comments: IPP REV:A 11.04.11 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA		Purchased	No			100	sf	162.4500	0.9223	14.56263			

M304S16GA

304/316 Sheet .063

m 16/01/18

Location

Loc Qty

Loc Code

MAT019

162.45

m132797

2.45

m133511

160

D4379-1

Manufactured

No

130

Each

84.0000

10

D4379-1

Wearplate Cup

18
150

x110

ml 16/01/25

Location

Loc Qty

Loc Code

WA002

84

133469

26

136603

58

x42

B140673 x ~~50~~ 110 68

DQA: _____ Date: _____

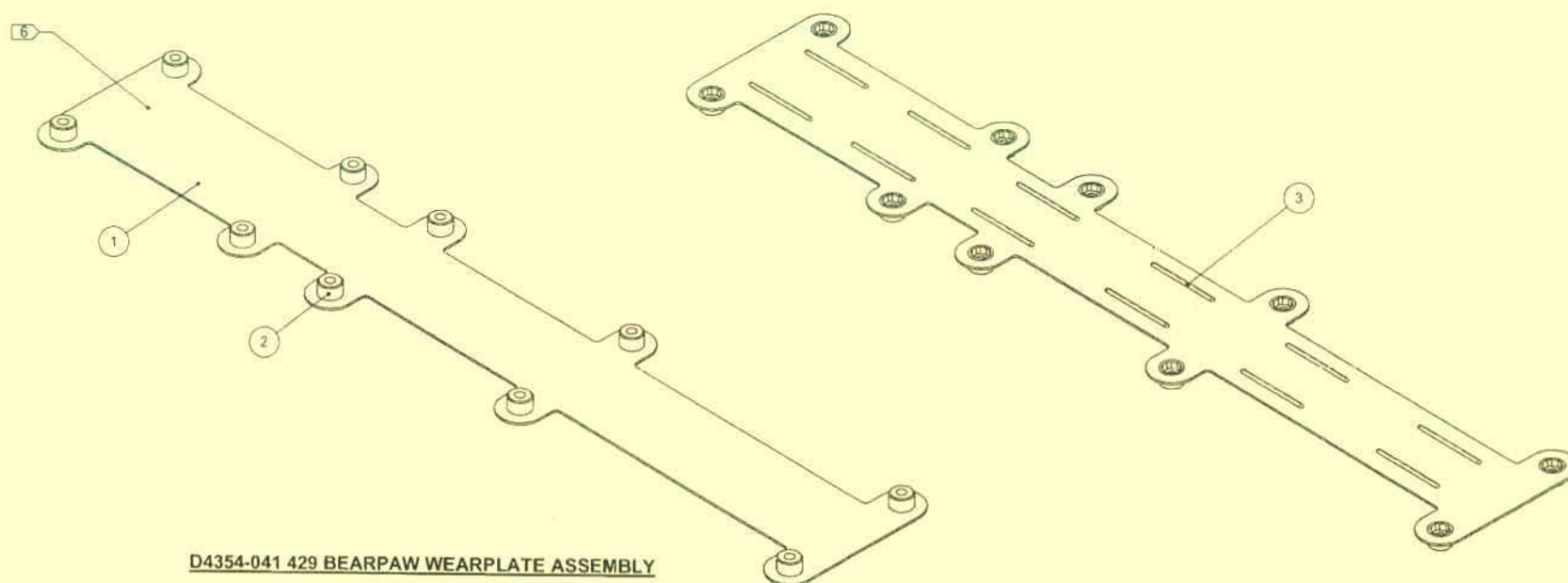
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Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

ITEM	QTY	P/N	DESCRIPTION
	X	D4354-041	429 BEARPAW WEARPLATE ASSEMBLY
1	1	D4354-1	429 BEARPAW WEARPLATE
2	10	D4379-1	WEARPLATE CUP
3	A/R	2059B	HARDCOAT



D4354-041 429 BEARPAW WEARPLATE ASSEMBLY

RELEASED
2011-05-25

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4354-041" AND B/N "BXXXXX" PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT: 1.75 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 12 PL

B	SHT 3, LIGHTENING HOLES DELETED. SHT 2 ZONE B1 & B6 HARDCOAT RELOCATED. REASON: PROTECTION OF BEARPAW		AJS	11.05.16
A	NEW ISSUE		AJS	11.03.24
REV.	DESCRIPTION		BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	AJS			
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B	
MFG. APPR.	<i>[Signature]</i>	D4354	SHEET 1 OF 3	
APPROVED	<i>[Signature]</i>	TITLE	SCALE	
DE APPR.	<i>[Signature]</i>	429 BEARPAW WEARPLATE ASSEMBLY	NTS	
DATE	11.05.16		COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS TO BE USED ONLY FOR THE PURPOSES FOR WHICH IT WAS ISSUED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.	

20160113
SLT
140667

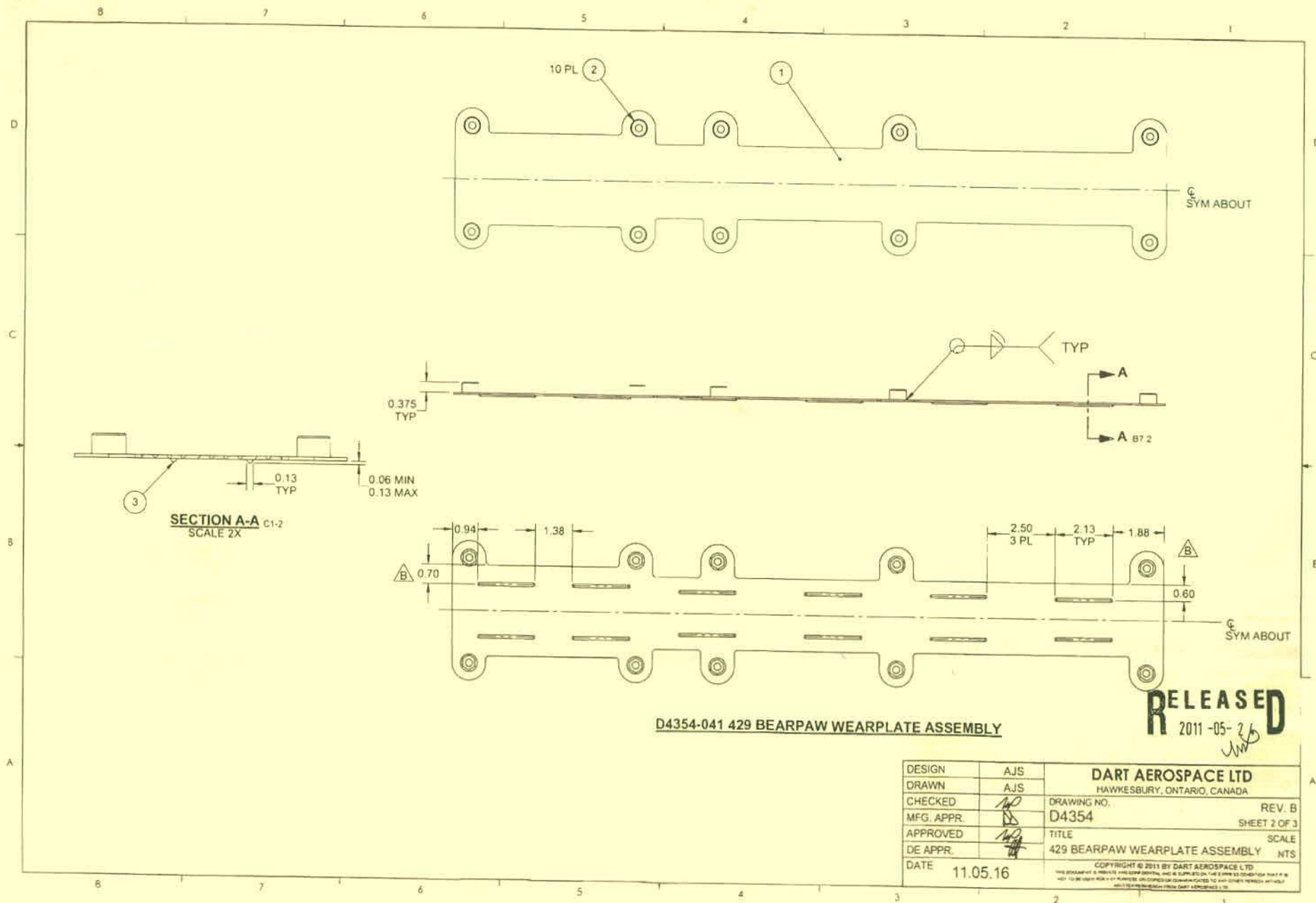
DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
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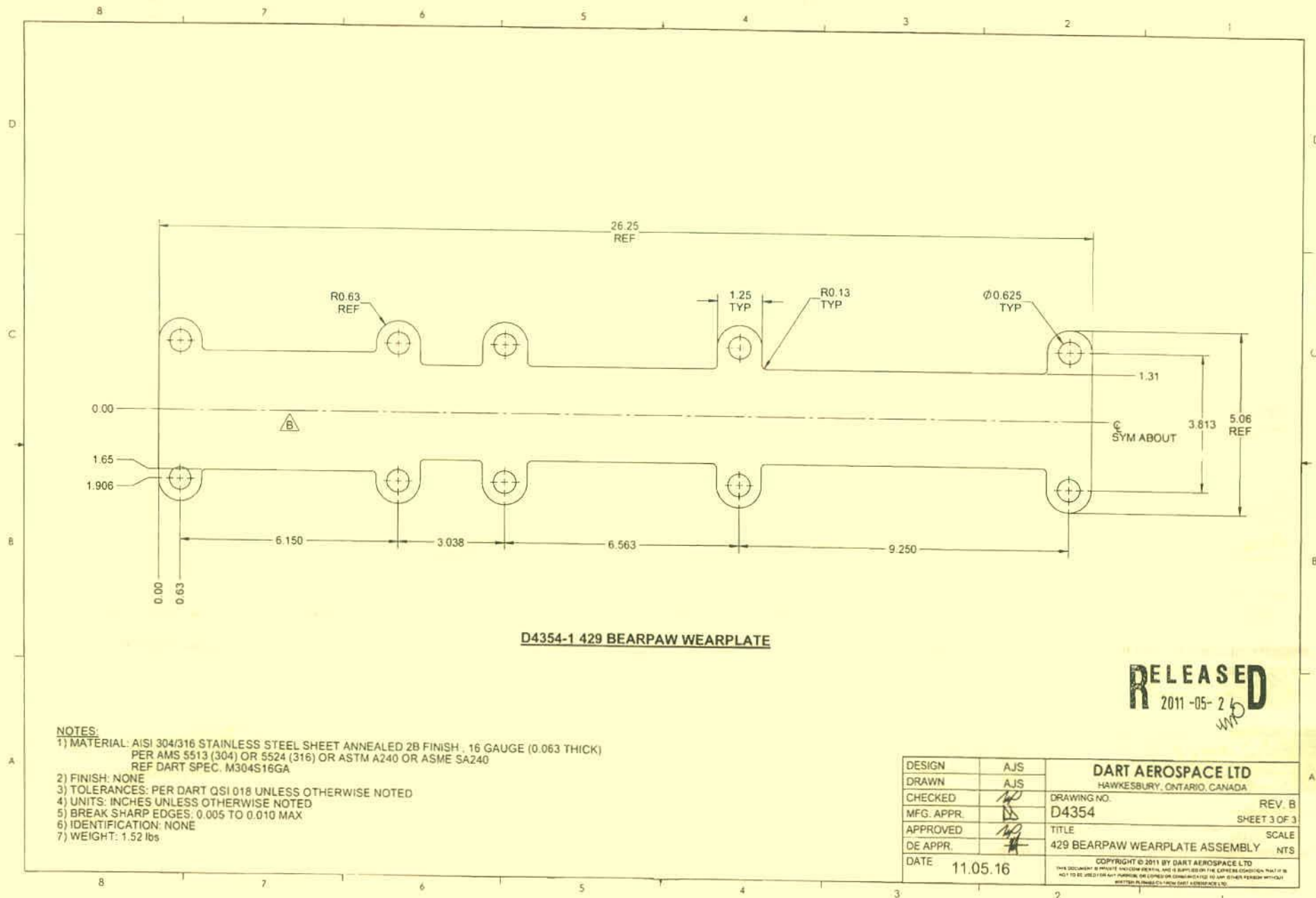


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RELEASED
2011-05-26
WMD

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : _____									

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Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____							
Misidentified ☐	☐ Past Due								